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SEP 09 2005

RE:

Application No.10/729,927

Applicant/Inventor: SLOWSKI, Darrel R.

Filed: 12/09/2003

Title: Illuminated Identification Panel

Examiner: Mr Paul Royal

Art Unit: 3611

## DECLARATION

The undersigned, Darrel Slowski, a Canadian citizen residing at New Tecumseth, Ontario, Canada, hereby Declares and states that:

1. I am the above-named inventor of the subject Application;
2. Since graduating from high school I have spent over twenty years in the Illuminated Sign industry of Canada;
3. I have been a Member of the Board of CSA (Canadian Standards Association) for the last twenty two years, being still a Member of that Board;
4. I have been a Member of the Board of the Canadian National Electrical Code for eighteen years, and am still a member of that Board;
5. The subject "lamp" of the present invention is the product of three and one half years research by me;
6. There are certain characteristics of photoluminescent lamps that the Examiner could not reasonably be expected to be familiar with, judging from his comments in regard thereto:
  - A) In the matter of illuminated lamp area, the larger this area, the higher the voltage required to produce the requisite luminescence emission; and the higher the illuminating voltage, the shorter the service life of that lamp. Consequently, significant increases in the selected size of the lamp screen lead to significant reductions in lamp service life.

B) In the matter of operating voltage, it is usual practice, with a lamp of a given rated voltage to operate that lamp at that rated voltage.

C) Photoluminescent lamps are most vulnerable to moisture, due to the large conductive areas involved, such that the provision of a weatherproof housing is of prime importance, as regards its effect on the longevity of the lamp.

7. A major drawback in the use of photoluminescent lamps has been their short life cycle. Thus, a lamp with a 15000 hour rated life, burning day and night, ( a year has 8760 hours) will have an anticipated service life of 1.712 years.

8. By monitoring ambient daylight with a photocell, and disconnecting the lamp from its power-source when daylight provides adequate illumination of the lamp screen, the life of the phosphor can be approximately doubled.

9. By operating the lamp at a reduced voltage, at about 60% of its rated voltage, an adequate level of illumination is provided, with an associated approximate doubling of lamp life.

10. Thus, the combination of lamp disconnection, and operation at reduced voltage enables lamp life to be boosted from less than two years to about six or more years, thus making a large screen photoluminescent display economically feasible.

11. Commenting upon the prior art references cited by the Examiner, there is a wealth of difference between these earlier arrangements and my subject lamp:

in the case of Hoffman (US 5,516,387) this lamp is NOT weatherproof, but is mounted within the window of a car, which in the clear absence of any special vapour-proofing leaves it vulnerable to the potentially high levels of humidity within the vehicle. Its indicia can only be installed when the lamp is disassembled.

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in the case of Balekjian (US 4,016,450) his photoelectric sensor is "responsive to the level of the phosphorescent glow of the indicia for briefly energizing or flashing the light source whereby to effectively recharge the phosphor when the light level of the glow decays below a predetermined value." (Abstract). Thus, Balekjian is NOT responsive to ambient light, as suggested by the Examiner, but responds to **indicia glow**; and his switch operates not as a cut-out (as is the case with my lamp), but as a charge-connecting switch to energize the indicia, to restore their glow.

in the case of Tanaka (US 5,759,671), his ultraviolet luminescent retroreflective sheeting admits ultraviolet light to a layer of cube-corner retroreflective elements, to emit light when they receive ultraviolet radiation. Thus, Tanaka utilizes ultraviolet light within his sign to enable UV luminescence to illuminate his signs for motorists, as they approach. As described with regard to his Figure 8, Tanaka has UV lamps 14 installed in front of his sign, to illuminate it with UV, in order to function! Tanaka is silent on any adverse effects of UV impinging on his sign, but does teach the advantage of internal utilization of UV, and illuminates his sign with UV lighting for that purpose.

the Harrold (US3,188,761) reference teaches the use of a commercial "Panelescent" lamp operating at normal household voltage (see Col 3 lines 26-28), i.e. 120-volts. It requires disassembly and re-assembly in order to install the house numbers; and there is no provision made for selective switching off of the current, for purposes of prolonging the service life of the unit. In my opinion, such an installation could not meet present day safety standards. The Balekjian detector and switch is totally irrelevant to the structure and operation of the Harrold sign, which with its household electricity supply would not be subject to the variations in emission, for which Balekjian provides correction.

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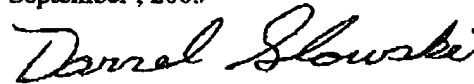
12. It seems noteworthy that none of the cited references are found to teach the monitoring of ambient light in order to switch-off a photoluminescent lamp, for the purpose of extending the service life of the lamp.

13. Likewise, the prior art appears mute on the matter of operating a photoluminescent sign at a voltage less than the rated voltage, for the purpose of achieving an extended service life.

14. Concerning the matter of indicia size for long range readability: it should be clearly understood that the particular value of the subject signs when located on the front wall of a residence is their readability from the roadside by passing emergency service personnel. Such personnel are required to meet high standards of physical fitness, including eye-sight. The subject signs facilitate the accurate identification of an address with a minimum of delay, thereby potentially saving lives, where a 911 call for heart attack or fire is being responded to.

Further, Declarant sayeth not.

Signed at New Tecumseth, Ontario, this 8th..day of September , 2005



Darrel R.SLOWSKI

4 (Decl)